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Typed or Printed Name of Person Mailing Paper or Fee: Patricia Aguillon .

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Signature: Pat Aguillon



PATENT
Docket No.P1316

IN THE
UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT:	BIN YU	EXAMINER: UNASSIGNED
SERIAL NO.:	09/844,752	ART UNIT: 2812
FILED:	APRIL 27, 2001	
FOR:	MOS TRANSISTOR WITH HIGHLY LOCALIZED SUPER HALO IMPLANT	

COMMISSIONER FOR PATENTS
OFFICE OF INITIAL PATENT EXAMINATION
CUSTOMER SERVICE CENTER
WASHINGTON, D.C. 20231

TRANSMITTAL LETTER

Dear Sir:

In connection with the above-referenced patent application, transmitted herewith are the following:

1. Request for Corrected Filing Receipt (2 pages);
2. Copy of Filing Receipt (4 pages);
3. Copy of Claims as filed with the application (3 pages); and
4. Post Card in acknowledgement of receipt of all transmitted materials.

Please date-stamp the enclosed post card and return same to the undersigned in acknowledgment of receipt of all transmitted materials.

Respectfully submitted,

A handwritten signature in cursive script, appearing to read "Victor Flores", with a long horizontal flourish extending to the right.

Victor Flores
Reg. No.29,638

VF/pa
July 10, 2001
LARIVIERE, GRUBMAN & PAYNE, LLP
Post Office Box 3140
Monterey, CA 93942
(831) 649-8800



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Typed or Printed Name of Person Mailing Paper or Fee: Patricia Aguillon

Signature: Patricia Aguillon

SEP - 7 2001

PATENT
Docket No. P1316

IN THE
UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANTS: BIN YU

SERIAL NO.: 09/844,752

EXAMINER: UNKNOWN

FILED: APRIL 27, 2001

ART UNIT: 2812

FOR: MOS TRANSISTOR WITH HIGHLY LOCALIZED SUPER HALO
IMPLANT

COMMISSIONER FOR PATENTS
OFFICE OF INITIAL PATENT EXAMINATION
CUSTOMER SERVICE CENTER
WASHINGTON, D.C. 20231

REQUEST FOR CORRECTED FILING RECEIPT

1. Attached is a copy of the original Filing Receipt. We respectfully request
issuance of a corrected filing receipt.

2. There is an error in:

X Total Claims

in that it should read as follows: 11

In support of this request, attached is a copy of the Claims as filed with the application.

Respectfully submitted,

A handwritten signature in cursive script, appearing to read "Victor Flores", written in dark ink.

Victor Flores

Reg. No.29,638

VF/pa
July 10, 2001
LARIVIERE, GRUBMAN & PAYNE, LLP
Post Office Box 3140
Monterey, CA 93942
(831) 649-8800

CLAIMS

COPY

What is claimed is:

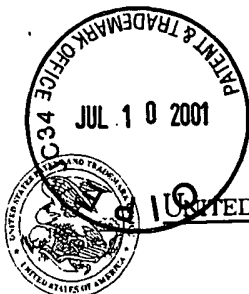
1. A method of making a MOSFET, comprising:
providing a substrate having a gate oxide and gate thereon;
performing a source/drain extension implant;
forming a spacer on the gate;
performing epitaxy to form raised source/drain regions;
forming a silicide on the gate and source/drain regions;
removing the spacer;
performing a halo implant; and
completing the MOSFET.
2. A method as recited in claim 1, wherein the source/drain extension implant comprises an approximately vertical implant to a depth of approximately 10 nm to 30 nm of ions selected from the group consisting essentially of B^+ , BF_2^+ , As^+ , Sb^+ , P^+ .
3. A method as recited in claim 1, wherein the spacer comprises a nitride.
4. A method as recited in claim 1 wherein the halo implantation comprises an approximately vertical implant to a depth of approximately 40 nm to 100 nm of ions selected from the group consisting essentially of B^+ , BF_2^+ , Ga^+ , In^+ , As^+ , Sb^+ , P^+ .
5. A method of making a MOSFET, comprising:
providing a substrate having a gate oxide and gate thereon;
performing a vertical source/drain extension implant to a depth of approximately 10 nm to approximately 30 nm;
forming a spacer on the gate;

forming raised source/drain regions;
forming a silicide on the gate and source/drain regions;
removing the spacer;
performing a halo implant; and
completing the MOSFET.

6. A method as recited in claim 5, wherein the spacer comprises a nitride.
7. A method as recited in claim 6, wherein the spacer is removed by wet chemistry.
8. A method as recited in claim 5, wherein the source/drain regions are formed by epitaxy.
9. A method as recited in claim 5 wherein the halo implantation comprises an approximately vertical implant to a depth of approximately 40 nm to 100 nm of ions selected from the group consisting essentially of B^+ , BF_2^+ , Ga^+ , In^+ , As^+ , Sb^+ , P^+ .
10. A method of making a MOSFET, comprising:
providing a substrate having a gate oxide and gate thereon;
performing an approximately vertical source/drain extension implant to a depth of approximately 10 nm to approximately 30 nm;
forming a nitride spacer on the gate;
performing epitaxy to form raised source/drain regions;
forming a silicide on the gate and source/drain regions;
removing the spacer;
performing an approximately vertical halo implant to a depth of approximately 40

nm to approximately 100 nm; and
completing the MOSFET.

11. A method as recited in claim 10 wherein the halo implantation comprises implantation of ions selected from the group consisting essentially of B^+ , BF_2^+ , Ga^+ , In^+ , As^+ , Sb^+ , P^+ .



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APPLICATION NUMBER	FILING DATE	GRP ART UNIT	FIL FEE REC'D	ATTY. DOCKET NO	DRAWINGS	TOT CLAIMS	IND CLAIMS
09/844,752	04/27/2001	2812	710	P1316	5	20	3

CONFIRMATION NO. 2099

FILING RECEIPT



OC00000006221228

 LaRiviere, Grubman & Payne, LLP
 P.O. Box 3140
 Monterey, CA 93942

Date Mailed: 06/25/2001

Receipt is acknowledged of this nonprovisional Patent Application. It will be considered in its order and you will be notified as to the results of the examination. Be sure to provide the U.S. APPLICATION NUMBER, FILING DATE, NAME OF APPLICANT, and TITLE OF INVENTION when inquiring about this application. Fees transmitted by check or draft are subject to collection. Please verify the accuracy of the data presented on this receipt. If an error is noted on this Filing Receipt, please write to the Office of Initial Patent Examination's Customer Service Center. Please provide a copy of this Filing Receipt with the changes noted thereon. If you received a "Notice to File Missing Parts" for this application, please submit any corrections to this Filing Receipt with your reply to the Notice. When the USPTO processes the reply to the Notice, the USPTO will generate another Filing Receipt incorporating the requested corrections (if appropriate).

Applicant(s)

Bin Yu, Sunnyvale, CA;

Domestic Priority data as claimed by applicant

Foreign Applications

If Required, Foreign Filing License Granted 06/23/2001

Projected Publication Date: Request for Non-Publication Acknowledged

Non-Publication Request: Yes

Early Publication Request: No

Title

MOS transistor with highly localized super halo implant

Preliminary Class

438

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Data entry by : BEYENE, MELKAM

Team : OIPE

Date: 06/25/2001



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Title 37, Code of Federal Regulations, 5.11 & 5.15**

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- The articles such as "a," "an" and "the" are not included as the first words in the title of an application. They are considered to be unnecessary to the understanding of the title.
- The words "new," "improved," "improvements in" or "relating to" are not included as first words in the title of an application because a patent application, by nature, is a new idea or improvement.
- The title may be truncated if it consists of more than 500 characters (letters and spaces combined).
- The docket number allows a maximum of 25 characters.
- If your application was submitted under 37 CFR 1.10, your filing date should be the "date in" found on the Express Mail label. If there is a discrepancy, you should submit a request for a corrected Filing Receipt along with a copy of the Express Mail label showing the "date in."
- The title is recorded in sentence case.

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